



Upper Mississippi River 9-Foot Channel Project - Operation and Maintenance Section 7 Consultation - Interior Least Tern

Species History

- ! Listed as endangered in 1985; Recovery Plan developed in 1990
- ! Small member of the tern family that requires open expanses of sand or pebble beaches along river banks and reservoirs for nesting. Foraging habitat includes side channels, sloughs and shallow-water habitats adjacent to sand islands and must be located within a short distance of a colony for successful reproduction.
- ! The interior least tern historically bred along the Mississippi River as far north as Lee County, Iowa. Currently, the breeding range along the Mississippi River extends to St. Louis, Missouri.
- ! The species' decline is attributed to the large-scale transformation of interior river systems for navigation, flood control, hydropower and irrigation which has eliminated much of the least terns' nesting habitat (e.g., sandbar habitat in the Lower Mississippi River declined by 33% from 1948 to 1994).
- ! Other causes of decline include water level fluctuations, human disturbance, pollutants and predation
- ! Least tern populations along the Lower Mississippi River and Middle Mississippi River have increased; however, this increase cannot be attributed to high reproductive productivity. It is thought to be the result of immigration.
- ! While the Mississippi River appears to have a large amount of sandbar habitat, much of this habitat is not likely available to least terns for nesting and may not be located near suitable foraging habitats.

Project Effects to the Species

- ! Continued alteration and disruption of dynamic, natural river processes that create and maintain habitat.
- ! Continued loss of habitat quality, quantity and diversity resulting in:
 - Reduced availability of suitable nesting habitat
 - Reduced availability of foraging habitat
 - Reduced availability and quantity of forage food
 - Increased incidence of predation
- ! Continued transference and homogenization of contaminants
 - Potentially impaired reproductive success
 - Potentially reduced bird health

Why Incidental Take?

- ! Take is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or

collect, or attempt to engage in any such conduct.

! Harm is further defined by the Service to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering.

! Over the 50 year project life, sandbar nesting habitat and foraging habitat are anticipated to decline in quantity and quality as a result of continued O&M. This represents significant habitat modification significantly impairing essential behavioral patterns of least terns in the MMR.

Reasonable and Prudent Measures (RPMs)

! Channel training structure maintenance projects will incorporate modifications to maintain least tern nesting habitat

! Dredge disposal techniques will be evaluated to examine opportunities and develop recommendations for restoring/enhancing sandbar and aquatic habitat. Recommendations to be implemented where feasible and appropriate.

! Utilize existing authorities to reduce the accretion of existing and/or newly established sandbars to the bankline and to reduce woody vegetation colonization

